

IN THE CLAIMS

Please amend the claims as follows:

1. (Thrice Amended) An image projection system, comprising:

a projection lens;

a dichroic cross-combiner assembly having outer surfaces with one outer surface facing the projection lens;

three micromirror display devices, each including an array of digitally deflected mirrors positioned facing an outer surface of the dichroic cross-combiner assembly; and

a coherent light source apparatus to generate blue, green, and red light, with the coherent light source apparatus being positioned at a location and in a manner such that the generated blue, green, and red light are provided to the three micromirror display devices respectively, without passing through the dichroic cross-combiner assembly, and the three micromirror display devices in turn reflecting the blue, green, and red light through the dichroic cross-combiner assembly toward the projection lens.

2. Previously cancelled.

3. (Once Amended before) The image projection system of claim 1, further comprising three pairs of lenses, each pair including an anamorphic beam expanding lens and an anamorphic collimating lens, each pair being positioned between one of the three coherent light sources and one of the three micromirror display devices.

4. (Once Amended before) The image projection system of claim 1 in which the coherent light source includes light-emitting diodes.
5. (Once Amended before) The image projection system of claim 1 in which the coherent light source includes lasers.
6. Previously cancelled.
7. Previously cancelled.
8. (Once amended before) The image projection system of claim 1 in which the digitally deflected mirrors are each quadrilateral and pivotable about a diagonal axis.
9. (Once amended before) The image projection system of claim 1 in which the digitally deflected mirrors are each quadrilateral and pivotable about a longitudinally centered axis.
10. (Once amended before) The image projection system of claim 1 in which the coherent light source apparatus is positioned such that the three micromirror display devices respectively receive blue, green, and red light at an oblique angle of incidence.
11. (Cancelled)

12. (Once amended before) The image projection system of claim 1 in which the coherent light source apparatus is positioned below the dichroic cross-combiner assembly.

13. (Once amended before) The image projection system of claim 1 in which each micromirror display device includes reflective pixels that are adapted to selectively reflect the respective blue, green, and red light towards one of the projection lens or a light-absorbing surface in proximity to the projection lens.

14. (Original) The image projection system of claim 13 in which the light-absorbing surface is positioned on a frame around the projection lens.

15. (Original) The image projection system of claim 1 in which the dichroic cross-combiner assembly includes an X-cube.

16. (Original) The image projection system of claim 1 in which the sides of the dichroic cross-combiner assembly are rectangular.

17. (Original) The image projection system of claim 1 in which the dichroic cross-combiner assembly comprises two X-cubes.

18. (Once amended before) The image projection system of claim 1 in which the dichroic cross-combiner assembly is adapted to simultaneously receive the blue, green, and red light from the respective micromirror display devices and to combine the blue, green, and red light to form a composite image directed toward the projection lens.

19. (Twice amended before) The image projection system of claim 1 further comprising three field lenses, in which each field lens is positioned between one of the three micromirror display devices and one of the outer surfaces of the dichroic cross-combiner assembly.

20. (Once amended before) The image projection system of claim 1 in which each of the blue, green, and red light has a full-width half-maximum spectra of less than 40 nanometers.

21. (Thrice amended) A method for projecting color display information, comprising:

directing from a location, blue, green, and red coherent light respectively toward three micromirror display devices, avoiding a dichroic cross-combiner assembly;

reflecting the blue, green, and read coherent light from the three micromirror display devices into the avoided diachronic cross-combiner assembly;

simultaneously combining the blue, green, and red coherent light from the respective micromirror display devices in the dichroic cross-combiner assembly to form a composite image; and

directing the composite image toward a projection lens.

22. (Thrice amended) The method of claim 21 further including obliquely directing the blue, green, and red light toward the three micromirror display devices respectively, avoiding the dichroic cross-combiner assembly.

23. (Twice amended before) The method of claim 21 further comprising expanding and collimating the blue, green, and red coherent light, before the blue, green, and red coherent light reach the three respective micromirror display devices.

24. (Once Amended) An image projection system, comprising:

a projection lens;

a dichroic cross-combiner assembly having a top outer surface, a bottom outer surface, and a plurality of side outer surfaces with one of the side outer surfaces facing the projection lens;

three micromirror display devices, each including an array of digitally deflected mirrors positioned facing a corresponding one of the other side outer surfaces of the dichroic cross-combiner assembly; and

a coherent light source apparatus, positioned at a location ~~lower than~~ directly under the projection lens, to generate blue, green, and red light, with the coherent light source apparatus being positioned such that the generated blue, green, and red light are provided to three side outer surfaces facing micromirror display devices respectively, through the dichroic cross-combiner assembly, and the three micromirror display devices in turn reflecting the blue, green, and red light through the dichroic cross-combiner assembly again, toward the projection lens.

25. (Unchanged, as originally added) The image projection system of claim 24 in which the coherent light source apparatus comprises a multicolor light source.

26. (Once Amended) A method for projecting color display information, comprising:

directing a multi-color light from a location ~~lower than~~ directly under a projection lens, toward a front side outer surface of a dichroic cross-combiner

assembly having a plurality of side outer surfaces, a top outer surface and a bottom outer surface;

splitting the multi-color light into at least blue, green, and red light, in the diachronic cross-combiner assembly, and directing the splitted blue, green, and red light toward three micromirror display devices correspondingly facing three other side outer surfaces of the dichroic cross-combiner assembly;

reflecting the blue, green, and red light from the three micromirror display devices back into the diachronic cross-combiner assembly;

simultaneously combining the blue, green, and red light from the respective micromirror display devices in the dichroic cross-combiner assembly to form a composite image; and

directing the composite image toward the projection lens.

27. (Unchanged, as originally added) The method of claim 26 further comprising expanding and collimating the blue, green, and red light, before the blue, green, and red light reach the three respective micromirror display devices.